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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,910	01/18/2002	James Beasley	340158001US1	9101

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EXAMINER	
HO, DUC CHI	
ART UNIT	**PAPER NUMBER**
2665	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,910	BEASLEY ET AL.	
	Examiner	Art Unit	
	Duc C. Ho	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,7,9,12-29,31,32,34-37 and 40-43* is/are rejected.

7)☒ Claim(s) *2,3,5,8,10-11,30,33,38 and 39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6-03;9-04;12-02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. Claims 13, 21, 29-39 are objected to because of the following informalities:

Regarding claim 13, it is suggested that a ";" should be used at the end of "unit" in line 12.

Regarding claim 21, it is unclear as to what intended to be the claimed limitation by reciting "the computer readable medium is a logical node", since a computer readable medium, i.e, a computer-readable disk, does not correspond to a logical node.

Regarding claim 29-line 6, the term "base station unit" should be changed to "access point" for consistency with the claim language. The same remark applies to claim 36.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4, 6, 7, 9, 13-17, 20-26, 28-29, 31-32, 34-35, and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal et al.(US 6,633,761), hereinafter referred to as Singhal, in view of Johansson et al.(US 2002/0044549), hereinafter referred to as Johansson.

Regarding claim 29, Singhal discloses enabling seamless user mobility in a short-range wireless networking environment. The HMPs-fig.1 are the access points, and operable with Bluetooth protocol. In Singhal, a handoff without assistance from a client device 120-fig. 1 to the HMP-fig. 1 is determined by the AUL registry, fig. 3-340, such as the one in figure 3, see col. 10-line 24 to col. 12-line 3.

Singhal, however, does not disclose (1) an access point coupled to the picocellular communication network, (2) the access point includes a memory and is configure for: (3) obtaining a unique session identifier for the communication with the mobile unit, and (4) establishing a communication link with the mobile unit, wherein the communication links includes link context data associated with the mobile unit, and wherein the link context data associated with the mobile unit is identified at least in part based on the unique session identifier.

One skill in the art would recognize the advantage of having a record at an access point (AP) for keeping track whether a mobile unit is active in communication

with the AP or not, and for a potential handoff when a mobile unit is out of range of effective communication with its existing AP.

Johansson discloses efficient scatternet forming. In Johansson, the master (access point) node 210- fig. 2 is operated within a piconet or a scatternet, see 0006-0007 (corresponding to (1)).

The master in each piconet keeps a record of each slave (mobile unit), see 0061-0062, and figure 8 (corresponding to (2)).

For communication in a piconet, a master unit of a piconet besides its 48-bit Bluetooth Device address (BD-ADDR), assigns a local active member address (AM_ADDR) to each active member of the piconet, and uses the AM_ADDR (corresponding to unique session identifier) when the master communicates with the slave, see 0009 (corresponding to (2)).

Referring to figure 4, the access code 410 in a Bluetooth packet can be of three different types (corresponding to link context), and the header 420 contains the AM-ADDR followed by some control parameters, see 0011(corresponding to (3)).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Singhal with Johnhanson.

The suggestion/motivation for doing so would have been keeping track whether a client device is active in communication with an AP, and for a potential handoff when a client device is out of range of effective communication with its existing AP to another AP.

Therefore, it would have been obvious to combine Singhal with Johanssen to obtain the invention as specified in claim 29.

Regarding claim 31, please see the rejection of claim 29. In Jonhansson the unique session identifier identified by a slave unit, i.e., "AM_ADDR", is a virtual Bluetooth device address.

Regarding claim 32, in Singhal the HMP includes a DHCP function for generating a unique Internet Protocol (IP).

Singhal, however, does not specifically disclose mapping the generated IP address to the unique session identifier.

Johansson discloses mapping the IP address to a BD_ADDR of a master unit, see 0109.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ a mechanism in which an IP address is mapped to a Bluetooth device address so that the underlying Bluetooth scatternet could provide a broadcast-like media by having the link layer (BD_ADDR) of the master node mapped to the IP address.

Regarding claim 34, in Singhal the HMP is stationary relative to a client device 120-fig. 1.

Regarding claim 35, please see the rejection of claim 29. The unique session identifier "AM-ADDR" is an active member address selected under the Bluetooth protocol.

Regarding claim 1, this claim has similar limitations as claim 29. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 29.

Regarding claim 4, this claim has similar limitations as claim 29. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 29.

Regarding claim 6, in Singhal the client device 120-fig. 1 is in operation under a Bluetooth protocol.

Regarding claim 7, please see the rejection of claim 4. In Johansson the unique session identifier is a virtual Bluetooth device address.

Regarding claim 9, this claim has similar limitations as claim 32. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 32.

Regarding claims 13-14, please see the rejection of claim 4. Johansson discloses a handing- off procedure in fig. 5, see 0014-0018.

Regarding claim 15, in Singhal the first and second HMPs are stationary relative to a moving vehicle.

Regarding claim 16, in Singhal the first and second HMPs are stationary.

Regarding claim 17, this claim has similar limitations as claim 35. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 35.

Regarding claim 20, this claim has similar limitations as claim 29. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 29. A computer-readable medium is taught by Singhal in col. 17, lines 1-36.

Regarding claim 21, in Singhal the node comprising the computer-readable medium is a logical node.

Regarding claim 22, in Singhal the computer-readable medium is a computer-readable disk.

Regarding claim 23, in Singhal the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents, see col. 17, lines 1-36.

Regarding claim 24, in Singhal the computer readable is inherently a memory of a computer system.

Regarding claim 25, this claim has similar limitations as claim 29. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 29.

Regarding claim 26, please see the rejection of claim 25. In Johansson, a master unit assigns a local active member address (AM_ADDR) to each active member of the piconet as illustrated in a record of figure 8.

Regarding claim 28, this claim has similar limitations as claim 29. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 29.

Regarding claim 40, this claim has similar limitations as claim 32. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 29.

Regarding claim 41, in Singhal the HMP-fig. 1 includes the means for receiving and establishing for wirelessly exchanging signals under a Bluetooth protocol.

Regarding claim 42, this claim has similar limitations as claim 31. Therefore, it is rejected under Singhal-Johansson for the same reasons set forth in the rejection of claim 31.

Regarding claim 43, in Singhal the HMP-fig. 1 is capable of providing short-range wireless communication up to 500 meters.

5. Claims 18-19, 27, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal, in view of Johansson, and further in view of Crosbie et al. (US 2002/0114303), hereinafter referred to as Crosbie.

Regarding claim 36, Singhal and Johansson disclose all claimed limitations, except the unique session identifier is a selected offset value from a synchronized native clock value CLKN employed by the first and second base station units.

One skill in the art would recognize the advantage of using a clock offset value from a synchronized native clock value CLKN employed by the first and second access point units in a network as a unique session identifier for handoff when a mobile unit moves from a first to a second access point.

Crosbie discloses a method and system for clock synchronization across wireless networks. Referring to figures 4-5, clock offset value from clock signals for access points and a mobile device has been used for synchronization in a Bluetooth implementation as a unique session identifier, see 0057-0064.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ a mechanism in which a clock offset value from a synchronized native clock value employed by the first and second access points as taught by Crosbie into the combination system of Singhal and Johansson so that when a mobile device can transfer a connection from an original to a destination access point without requiring resynchronization of the mobile device, which enables a seamless user mobility in a short-range wireless networking environment.

Regarding claim 37, please see the rejection of claim 36. In Crosbie, see figures 4-5, a source access point has a clock and is synchronize with a clock of the neighboring access point, see 0057-0064.

Regarding claims 18-19, these claims have similar limitations as claims 36-37. Therefore, they are rejected under Singhal-Johansson for the same reasons set forth in the rejection of claims 18-19, respectively.

Regarding claim 27, this claim has similar limitations as claim 29. Therefore, it is rejected under Singhal-Johansson-Crosbie for the same reasons set forth in the rejection of claim 29.

Allowable Subject Matter

6. Claims 2-3, 5, 8, 10, 30, 33, 38, and 39 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kammer(US 6,826,387); Lumelsky (US 6,885,847); van Valkenburg et al. (US 6,775,258) are cited to show link context mobility method and system for providing such mobility, such as a system employing short range frequency hopping spread spectrum wireless protocols, which is considered pertinent to the claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

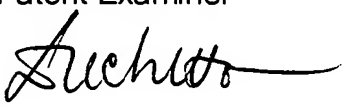
If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner



Duc Ho

08-09-05